

24. (New) The use of the device according to claim 13 for measuring a thickness of a material interacting by absorption with the radiation to be measured.

IN THE ABSTRACT

Please add the following new Abstract on a separate sheet:

## ABSTRACT

A device for measuring the luminous intensity of radiation. The device includes a photomultiplier that has a photoelectric input cathode and a calibration source. The calibration source is adapted to emit radiation of a constant intensity towards the photoelectric cathode. The measurement for the radiation to be measured is related to that of the radiation of the calibration source. The device and method eliminate fluctuations and/or deviations of the photomultiplier gain. The device or method can be advantageously used with pulsed X-rays.